WHAT IS CLAIMED IS:

1. An *in vitro* method of cloning an amplification product comprising:
   (a) obtaining an amplification product comprising a first recombination site and a second recombination site which do not recombine with each other; and
   (b) combining said amplification product *in vitro* with a vector comprising a third recombination site and a fourth recombination site which do not recombine with each other, under conditions such that recombination occurs between said first and third and said second and fourth recombination sites, thereby producing a product vector.

2. The method of claim 1, further comprising inserting said product vector into a host cell.

3. The method of claim 1, wherein said vector is an expression vector.

4. The method of claim 1, wherein said vector comprises at least one additional nucleic acid sequence selected from the group consisting of a selectable marker, a cloning site, a restriction site, a promoter, an operon, an origin of replication, and a gene or partial gene.

5. The method of claim 1, wherein said vector comprises at least one origin of replication.

6. The method of claim 1, wherein said vector comprises at least one promoter.

7. The method of claim 1, wherein said vector comprises at least one selectable marker.

8. The method of claim 1, wherein said amplification product is linear.

9. The method of claim 1, wherein said first, second, third or fourth recombination sites are *lox* sites or functional mutants thereof.

10. The method of claim 9, wherein said *lox* sites are selected from the group consisting of *lox*P sites and *lox*P511 sites.

11. The method of claim 1, wherein said first, second, third or fourth recombination sites are *att* sties or functional mutants thereof.

12. The method of claim 11, wherein said *att* sites are selected from the group consisting of *att*B sites, *att*P sites, *att*L sites and *att*R sites.

13. The method of claim 1, wherein said first, second, third or fourth recombination sites are selected from the group consisting of a *lox* site, an *att* site, an FRT site, and functional mutants thereof.

14. The method of claim 1, wherein said amplification product and said vector are combined in the presence of at least one recombination protein.

15. The method of claim 14, wherein said recombination protein is Cre.

16. The method of claim 14, wherein said recombination protein is selected from the group consisting of Int, Xis and IHF.

17. The method of claim 1, wherein said amplification product is a polymerase chain reaction product.

18. The method of claim 17, wherein said polymerase chain reaction product is linear.